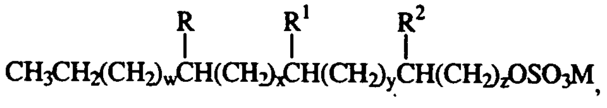
1. A laundry detergent composition comprising:

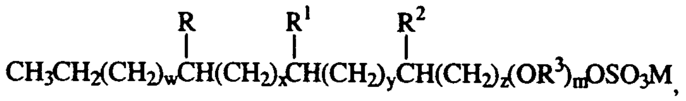
   a) from about 0.01% by weight, of a polyamine, said polyamine selected from the group consisting of:
      - i) polyamines comprising two or more backbone nitrogens;
      - ii) polyamines comprising one or more cationic backbone nitrogens;
      - iii) polyamines comprising one or more alkoxylated backbone nitrogens;
      - iv) polyamines comprising one or more cationic backbone nitrogens and one or more alkoxylated backbone nitrogens; and
      - v) mixtures thereof;

   b) from about 0.01% of a surfactant system comprising:
      - i) from 0% to 80% by weight, of a mid-chain branched alkyl sulfate surfactant selected from the group consisting of surfactants having the formula:



$$\mathrm{CH_3CH_2(CH_2)_w\overset{R}{\overset{|}{C}}H(CH_2)_x\overset{R^1}{\overset{|}{C}}H(CH_2)_y\overset{R^2}{\overset{|}{C}}H(CH_2)_zOSO_3M},$$

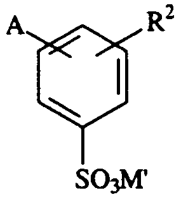
the formula:



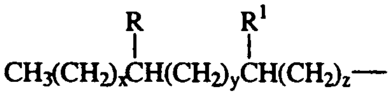
$$\mathrm{CH_3CH_2(CH_2)_w\overset{R}{\overset{|}{C}}H(CH_2)_x\overset{R^1}{\overset{|}{C}}H(CH_2)_y\overset{R^2}{\overset{|}{C}}H(CH_2)_z(OR^3)_mOSO_3M},$$

and mixtures thereof; wherein R. R^1, and R^2 are each independently hydrogen, C_1-C_3 alkyl, and mixtures thereof, provided the total number of carbon atoms in said surfactant is from 14 to 20 and at least one of R, R^1, and R^2 is not hydrogen; the index w is an integer from 0 to 13; x is an integer from 0 to 13; y is an integer from 0 to 13; z is an integer of at least 1; provided w + x + y + z is from 8 to 14 and the total number of carbon atoms in a surfactant is from 14 to 20; R^3 is ethylene, 1,2-propylene, 1,3-propylene, 1,2-butylene, 1,4-butylene, and mixtures thereof; the average value of the index m is at least about 0.01;

ii) from 0% to 80% by weight, of a mid-chain branched aryl sulfonate surfactant having the formula:



wherein A is a mid-chain branched alkyl unit having the formula:



$$CH_3(CH_2)_x\underset{}{\overset{R}{C}}H(CH_2)_y\overset{R^1}{C}H(CH_2)_z—$$

wherein R and R^1 are each independently hydrogen, C_1-C_3 alkyl, and mixtures thereof, provided the total number of carbon atoms in said alkyl unit is from 6 to 18 and at least one of R and R^1 is not hydrogen; x is an integer from 0 to 13; y is an integer from 0 to 13; z is 0 or 1; R^2 is hydrogen, C_1-C_3 alkyl, and mixtures thereof; M' is a water soluble cation with sufficient charge to provide neutrality;

iii) optionally from 0.01% by weight, of a surfactant selected from the group consisting of anionic, nonionic, cationic, zwitterionic, ampholytic surfactants, and mixtures thereof; and

c) the balance carriers and adjunct ingredients.

2. A composition according to Claim 1 wherein said polyamine comprises a polyamine having the formula:

$$[J—R]_n—J$$

wherein J is selected from the group consisting of:

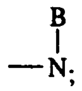
i) primary amino units having the formula:

$$(R^1)_2N;$$

ii) secondary amino units having the formula:

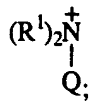
$$—R^1N;$$

iii) tertiary amino units having the formula:



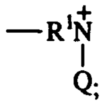
$$-\overset{\overset{\displaystyle B}{|}}{N};$$

iv) primary quaternary amino units having the formula:



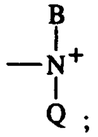
$$(R^1)_2\overset{+}{\underset{\underset{\displaystyle Q}{|}}{N}};$$

v) secondary quaternary amino units having the formula:



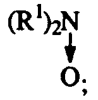
$$-R^1\overset{+}{\underset{\underset{\displaystyle Q}{|}}{N}};$$

vi) tertiary quaternary amino units having the formula:



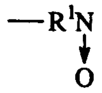
$$-\overset{\overset{\displaystyle B}{|}}{\underset{\underset{\displaystyle Q}{|}}{N^+}};$$

vii) primary N-oxide amino units having the formula:



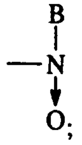
$$(R^1)_2\underset{\underset{\displaystyle O}{\downarrow}}{N};$$

viii) secondary N-oxide amino units having the formula:



$$-R^1\underset{\underset{\displaystyle O}{\downarrow}}{N}$$

ix) tertiary N-oxide amino units having the formula:



$$-\overset{\overset{\displaystyle B}{|}}{\underset{\underset{\displaystyle O}{\downarrow}}{N}};$$

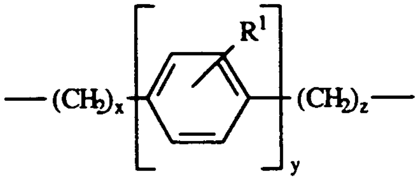
x) and mixtures thereof;

wherein B is a continuation of the backbone by branching having the formula:

$$[J—R]—;$$

R is a backbone unit selected from the group consisting of:

i) C_2-C_{12} linear alkylene, C_3-C_{12} branched alkylene, C_6-C_{16} substituted or unsubstituted arylene, C_7-C_{40} substituted or unsubstituted alkylenearylene having the formula:



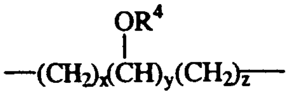
;

or mixtures thereof;

ii) poly(alkyleneoxy)alkylene units having the formula:

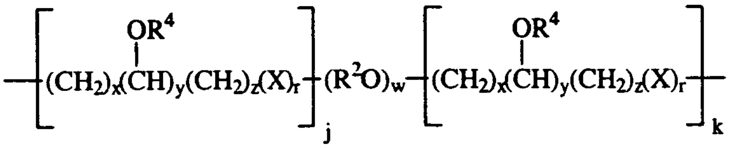
$$-(R^2O)_w(R^3)-$$

iii) hydroxyalkylene units having the formula:



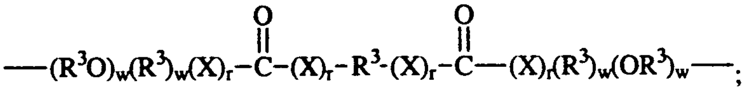
$$-(CH_2)_x(\overset{OR^4}{\overset{|}{C}}H)_y(CH_2)_z-$$

iv) hydroxyalkylene/oxyalkylene units having the formula:



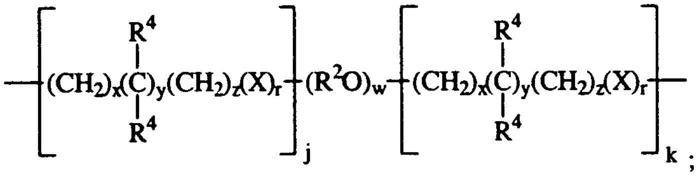
$$-\left[(CH_2)_x(\overset{OR^4}{\overset{|}{C}}H)_y(CH_2)_z(X)_r\right]_j(R^2O)_w\left[(CH_2)_x(\overset{OR^4}{\overset{|}{C}}H)_y(CH_2)_z(X)_r\right]_k-$$

v) carboxyalkyleneoxy units having the formula:



$$-(R^3O)_w(R^3)_w(X)_r-\overset{O}{\overset{\|}{C}}-(X)_r-R^3-(X)_r-\overset{O}{\overset{\|}{C}}-(X)_r(R^3)_w(OR^3)_w-;$$

vi) backbone branching units having the formula:



$$-\left[(CH_2)_x(\underset{\underset{R^4}{|}}{\overset{R^4}{\overset{|}{C}}})_y(CH_2)_z(X)_r\right]_j(R^2O)_w\left[(CH_2)_x(\underset{\underset{R^4}{|}}{\overset{R^4}{\overset{|}{C}}})_y(CH_2)_z(X)_r\right]_k;$$

vii) and mixtures thereof;

R^1 is selected from the group consisting of:

i) hydrogen;

ii) C_1-C_{22} alkyl;

iii) C_7-C_{22} arylenealkyl;

iv) C_7-C_{22} alkylenearyl;

v) $-[CH_2CH(OR^4)CH_2O]_s(R^2O)_tY$;

vi) anionic units;

vii) and mixtures thereof;

R^2 is selected from the group consisting of ethylene, 1,2-propylene, 1,3-propylene, 1,2-butylene, 1,4-butylene, 1,6 hexylene, 1,2-hexylene, 1,4-phenylene, and mixtures thereof;

R^3 is C_2-C_8 linear alkylene, C_3-C_8 branched alkylene, phenylene, substituted phenylene, and mixtures thereof;

R^4 is hydrogen, C_1-C_6 alkyl, $-(CH_2)_u(R^2O)_t(CH_2)_uY$, and mixtures thereof;

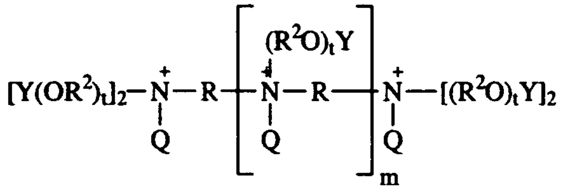
Q is a quaternizing unit selected from the group consisting of C_1-C_4 linear alkyl, C_1-C_4 hydroxyalkyl, benzyl, $-[CH_2CH(OR^4)CH_2O]_s(R^2O)_tY$, and mixtures thereof;

X is oxygen, $-NR^4-$, and mixtures thereof;

Y is hydrogen, C_1-C_4 linear alkyl, $-N(R^1)_2$, an anionic unit, and mixtures thereof;

the index j is from 0 to 20; the index k is from 1 to 20; n is from 2 to 1000; the index r is 0 or 1; the index s is from 0 to 5; the index t has an average value of from about 0.5 to about 100; the index u is from 0 to 6; the index w is from 0 to 25; the indices x, y, and z are each independently from 0 to 20.

3. A composition according to Claim 1 wherein said polyamine has the formula:



$$[Y(OR^2)_t]_2-\overset{+}{\underset{\displaystyle Q}{N}}-R\left[-\overset{\displaystyle (R^2O)_tY}{\underset{\displaystyle Q}{\overset{+}{N}}}-R-\right]_m\overset{+}{\underset{\displaystyle Q}{N}}-[(R^2O)_tY]_2$$

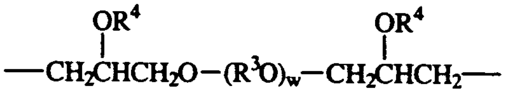
wherein R units are alkyleneoxyalkylene units Y is an anionic unit selected from the group consisting of $-(CH_2)_fCO_2M$, $-C(O)(CH_2)_fCO_2M$, $-(CH_2)_fPO_3M$, $-(CH_2)_fOPO_3M$, $-(CH_2)_fSO_3M$, $-CH_2(CHSO_3M)-(CH_2)_fSO_3M$, $-CH_2(CHSO_2M)-(CH_2)_fSO_3M$, $-C(O)CH_2CH(SO_3M)CO_2M$, $-C(O)CH_2CH(CO_2M)NHCH-(CO_2M)CH_2CO_2M$, $-CH_2CH(OZ)CH_2O(R^1O)_tZ$, $-(CH_2)_fCH[O(R^2O)_tZ]CH_fO-(R^2O)_tZ$, and mixtures thereof, wherein Z is hydrogen or an anionic unit selected from the group consisting of $-(CH_2)_fCO_2M$, $-C(O)(CH_2)_fCO_2M$, $-(CH_2)_fPO_3M$, $-(CH_2)_fOPO_3M$, $-(CH_2)_fSO_3M$, $-CH_2(CHSO_3M)-(CH_2)_fSO_3M$, $-CH_2(CHSO_2M)(CH_2)_fSO_3M$, $-C(O)CH_2CH(SO_3M)CO_2M$, $-C(O)CH_2CH(CO_2M)NHCH(CO_2M)CH_2CO_2M$, and mixtures thereof; M is hydrogen, a water soluble cation, and mixtures thereof; the index f is from 0 to about10; the index m is from 1 to 20.

4. A composition according to Claim 2 wherein R^2 is ethylene.

5. A composition according to Claim 4 wherein the index m is from 1 to 3.

6. A composition according to Claim 2 wherein said polyamine comprises hydroxyalkylene/oxyalkylene R backbone units wherein R^2 is selected from the group consisting of ethylene.

7. A composition according to Claim 6 wherein said hydroxyalkylene/oxyalkylene R backbone units have the formula:

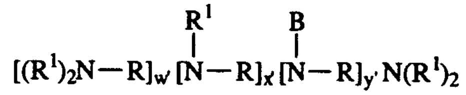


$$-CH_2\overset{OR^4}{\overset{|}{C}}HCH_2O-(R^3O)_w-CH_2\overset{OR^4}{\overset{|}{C}}HCH_2-$$

wherein each R^3 is independently ethylene, propylene, and mixtures thereof; R^4 is hydrogen, $-(R^2O)_tY$, and mixtures thereof; w is from 1 to about 5.

8. A composition according to Claim 7 wherein R^4 is hydrogen.

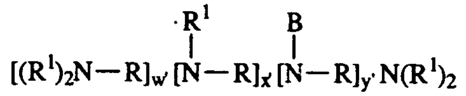
9. A composition according to Claim 1 wherein said polyamine has the formula:



$$[(R^1)_2N-R]_{w'}[\overset{R^1}{\overset{|}{N}}-R]_{x'}[\overset{B}{\overset{|}{N}}-R]_{y'}N(R^1)_2$$

wherein R is ethylene; R^1 is $-(R^2O)_tY$; wherein R^2 is ethylene, 1,2-propylene, and mixtures thereof; Y is hydrogen; w' + x' + y' is from about 13 to about 71, t has an average value of from about 0.5 to about 30.

10. A composition according to Claim 1 wherein said polyamine is a bleach stable polyamine having the formula:



$$[(R^1)_2N-R]_{w'}[\overset{R^1}{\overset{|}{N}}-R]_{x'}[\overset{B}{\overset{|}{N}}-R]_{y'}N(R^1)_2$$

wherein R is ethylene; R^1 is $-(R^2O)_tY$; wherein R^2 comprises 3 1,2-propyleneoxy units bonded directly to the backbone and 27 subsequent ethyleneoxy units; Y is hydrogen; w'

+ x' + y' is such that the backbone prior to modification has a molecular weight of about 3000 daltons.

11. A composition according to Claim 1 comprising from about 0.01% by weight of a mid-chain branched aryl sulphonate surfactant admixture wherein at least one of said surfactants which comprises said admixture comprises R equal to methyl, R^1 equal to methyl, R^2 equal to hydrogen, and z equal to 0.

12. A composition according to Claim 11 wherein at least 75% of said surfactants which comprise said admixture have R^1 equal to methyl and z equal to 0.

13. A composition according to Claim 1 comprising from about 0.01% by weight of a mid-chain branched alkyl sulfate surfactant admixture wherein at least one of said surfactants which comprises said admixture comprises R equal to methyl, R^1 equal to hydrogen, R^2 equal to hydrogen, and the sum of w + x + y + z is equal to from 8 to 10.

14. A composition according to Claim 13 wherein at least 75% of said surfactants which comprise said admixture have R equal to methyl and w equal to 0.

15. A composition according to Claim 1 comprising from about 0.01% by weight of a mid-chain branched alkyl alkoxy sulfate surfactant admixture wherein at least one of said surfactants which comprises said admixture comprises R equal to methyl, R^1 equal to hydrogen, R^2 equal to hydrogen, the sum of w + x + y + z is equal to from 8 to 10, and m is from 1 to 7.

16. A composition according to Claim 15 wherein at least 75% of said surfactants which comprise said admixture have R equal to methyl and w equal to 0.

17. A composition according to Claim 15 wherein m is from 2 to 5.

18. A composition according to Claim 1 comprising from about 0.01% by weight of a surfactant admixture said admixture comprising one or more mid-chain branched alkyl sulfate surfactants and one or more mid-chain branched alkyl alkoxy sulfate surfactants

wherein at least one of said surfactants which comprises said admixture comprises R equal to methyl, R^1 equal to hydrogen, R^2 equal to hydrogen, and the sum of w + x + y + z is equal to from 8 to 10 and the average value of m is from about 0.01 to 10.

19. A composition according to Claim 18 wherein at least 75% of said surfactants which comprise said admixture have R equal to methyl and w equal to 0.

20. A composition according to Claim 1 further comprising about 1% by weight of a builder.

21. A composition according to Claim 1 further comprising from about 1% by weight, of a peroxygen bleaching system comprising:
   - i) from about 40% by weight, of the bleaching system, a source of hydrogen peroxide;
   - ii) optionally from about 0.1% by weight, of the beaching system, a beach activator;
   - iii) optionally from about 1 ppb of the composition, of a transition-metal bleach catalyst; and
   - iv) optionally from about 0.1% by weight, of a pre-formed peroxygen bleaching agent.

22. A laundry detergent composition comprising
   a) from about 0.01% by weight, of a polyamine, said polyamine having the formula:

$$[J-R]_n-J$$

wherein J is selected from the group consisting of:

i) primary amino units having the formula:

$$(R^1)_2N;$$

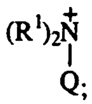
ii) secondary amino units having the formula:

$$-R^1N;$$

iii) tertiary amino units having the formula:

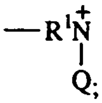
$$\overset{\displaystyle B}{\overset{|}{-N}};$$

iv) primary quaternary amino units having the formula:



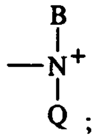
$(R^1)_2\overset{+}{N}-Q$;

v) secondary quaternary amino units having the formula:



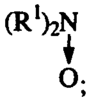
$-R^1\overset{+}{N}-Q$;

vi) tertiary quaternary amino units having the formula:



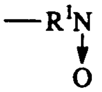
$-\overset{\displaystyle B}{\underset{\displaystyle Q}{N^+}}$;

vii) primary N-oxide amino units having the formula:



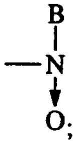
$(R^1)_2N\rightarrow O$;

viii) secondary N-oxide amino units having the formula:



$-R^1N\rightarrow O$

ix) tertiary N-oxide amino units having the formula:



$-\overset{\displaystyle B}{\underset{\displaystyle \downarrow \atop O}{N}}$;

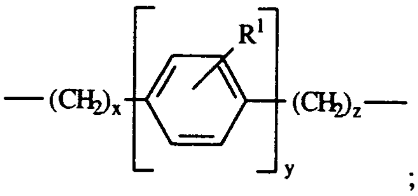
x) and mixtures thereof;

wherein B is a continuation of the backbone by branching having the formula:

[J—R]—;

R is a backbone unit selected from the group consisting of:

i) C_2-C_{12} linear alkylene, C_3-C_{12} branched alkylene, C_6-C_{16} substituted or unsubstituted arylene, C_7-C_{40} substituted or unsubstituted alkylenearylene having the formula:



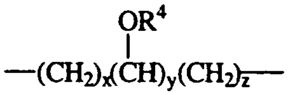
;

or mixtures thereof;

ii) poly(alkyleneoxy)alkylene units having the formula:

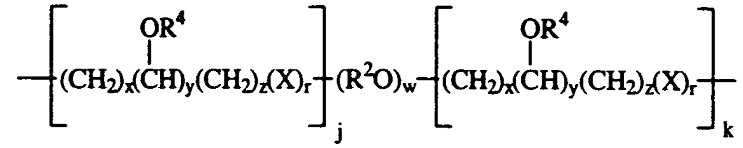
$$-(R^2O)_w(R^3)-$$

iii) hydroxyalkylene units having the formula:



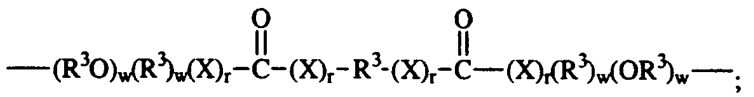
$$-(CH_2)_x(\overset{\overset{\displaystyle OR^4}{|}}{C}H)_y(CH_2)_z-$$

iv) hydroxyalkylene/oxyalkylene units having the formula:



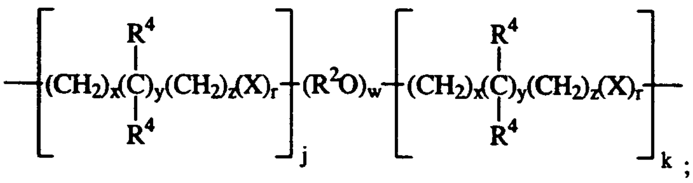
$$-\left[(CH_2)_x(\overset{\overset{\displaystyle OR^4}{|}}{C}H)_y(CH_2)_z(X)_r\right]_j(R^2O)_w\left[(CH_2)_x(\overset{\overset{\displaystyle OR^4}{|}}{C}H)_y(CH_2)_z(X)_r\right]_k-$$

v) carboxyalkyleneoxy units having the formula:



$$-(R^3O)_w(R^3)_w(X)_r-\overset{\overset{\displaystyle O}{||}}{C}-(X)_r-R^3-(X)_r-\overset{\overset{\displaystyle O}{||}}{C}-(X)_r(R^3)_w(OR^3)_w-;$$

vi) backbone branching units having the formula:



$$-\left[(CH_2)_x(\underset{\underset{\displaystyle R^4}{|}}{\overset{\overset{\displaystyle R^4}{|}}{C}})_y(CH_2)_z(X)_r\right]_j(R^2O)_w\left[(CH_2)_x(\underset{\underset{\displaystyle R^4}{|}}{\overset{\overset{\displaystyle R^4}{|}}{C}})_y(CH_2)_z(X)_r\right]_k;$$

vii) and mixtures thereof;

R^1 is selected from the group consisting of:

i) hydrogen;

ii) C_1-C_{22} alkyl;

iii) C_7-C_{22} arylenealkyl;

iv) C_7-C_{22} alkylenearyl;

v) $-[CH_2CH(OR^4)CH_2O]_s(R^2O)_tY$;

vi) anionic units;

vii) and mixtures thereof;

R^2 is selected from the group consisting of ethylene, 1,2-propylene, 1,3-propylene, 1,2-butylene, 1,4-butylene, 1,6 hexylene, 1,2-hexylene, 1,4-phenylene, and mixtures thereof;

R^3 is C_2-C_8 linear alkylene, C_3-C_8 branched alkylene, phenylene, substituted phenylene, and mixtures thereof;

R^4 is hydrogen, C_1-C_6 alkyl, $-(CH_2)_u(R^2O)_t(CH_2)_uY$, and mixtures thereof;

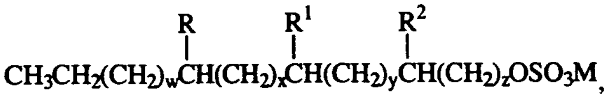
Q is a quaternizing unit selected from the group consisting of C_1-C_4 linear alkyl, C_1-C_4 hydroxyalkyl, benzyl, $-[CH_2CH(OR^4)CH_2O]_s(R^2O)_tY$, and mixtures thereof;

X is oxygen, $-NR^4-$, and mixtures thereof;

Y is hydrogen, C_1-C_4 linear alkyl, $-N(R^1)_2$, an anionic unit, and mixtures thereof; the index j is from 0 to 20; the index k is from 1 to 20; n is from 2 to 1000; the index r is 0 or 1; the index s is from 0 to 5; the index t has an average value of from about 0.5 to about 100; ; the index u is from 0 to 6; the index w is from 0 to 25; the indices x, y, and z are each independently from 0 to 20;

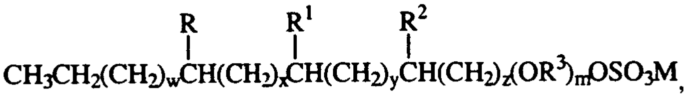
b) from about 0.01% by weight, of a surfactant system comprising:

i) from 0% to 80% by weight, of a mid-chain branched alkyl sulfate surfactant selected from the group consisting of surfactants having the formula:



$$CH_3CH_2(CH_2)_w\overset{\overset{R}{|}}{C}H(CH_2)_x\overset{\overset{R^1}{|}}{C}H(CH_2)_y\overset{\overset{R^2}{|}}{C}H(CH_2)_zOSO_3M,$$

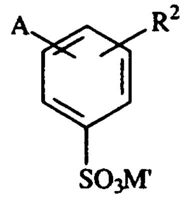
the formula:



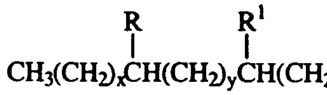
$$CH_3CH_2(CH_2)_w\overset{\overset{R}{|}}{C}H(CH_2)_x\overset{\overset{R^1}{|}}{C}H(CH_2)_y\overset{\overset{R^2}{|}}{C}H(CH_2)_z(OR^3)_mOSO_3M,$$

and mixtures thereof; wherein R, R^1, and R^2 are each independently hydrogen, C_1-C_3 alkyl, and mixtures thereof, provided the total number of carbon atoms in said surfactant is from 14 to 20 and at least one of R, R^1, and R^2 is not hydrogen; the index w is an integer from 0 to 13; x is an integer from 0 to 13; y is an integer from 0 to 13; z is an integer of at least 1; provided w + x + y + z is from 8 to 14 and the total number of carbon atoms in a surfactant is from 14 to 20; R^3 is ethylene, 1,2-propylene, 1,3-propylene, 1,2-butylene, 1,4-butylene, and mixtures thereof; the average value of the index m is at least about 0.01;

ii) from 0% to 80% by weight, of a mid-chain branched aryl sulfonate surfactant having the formula:



wherein A is a mid-chain branched alkyl unit having the formula:



$$CH_3(CH_2)_x\overset{R}{\overset{|}{C}}H(CH_2)_y\overset{R^1}{\overset{|}{C}}H(CH_2)_z—$$

wherein R and R^1 are each independently hydrogen, C_1-C_3 alkyl, and mixtures thereof, provided the total number of carbon atoms in said alkyl unit is from 6 to 18 and at least one of R and R^1 is not hydrogen; x is an integer from 0 to 13; y is an integer from 0 to 13; z is 0 or 1; R^2 is hydrogen. C_1-C_3 alkyl, and mixtures thereof; M' is a water soluble cation with sufficient charge to provide neutrality;

iii) optionally from 0.01% by weight, of a surfactant selected from the group consisting of anionic, nonionic, cationic, zwitterionic, ampholytic surfactants, and mixtures thereof;

c) optionally from about 1% by weight, of a fabric softening active;

d) optionally less than about 15% by weight, of a principal solvent. said principal solvent has a ClogP of from about 0.15 to about 1;

d) optionally from about 0.001% to about 90% by weight, of one or more dye fixing agents;

f) optionally from about 0.01% to about 50% by weight, of one or more cellulose reactive dye fixing agents;

g) optionally from about 0.01% to about 15% by weight, of a chlorine scavenger;

h) optionally about 0.005% to about 1% by weight, of one or more crystal growth inhibitors;

i) optionally from about 1% to about 12% by weight, of one or more liquid carriers;

j) optionally from about 0.001% to about 1% by weight, of an enzyme;

k) optionally from about 0.01% to about 8% by weight, of a polyolefin emulsion or suspension;

l) optionally from about 0.01% to about 0.2% by weight, of a stabilizer;

m) optionally from about 1% to about 80% by weight, of a fabric softening active;

n) from about 0.01% by weight, of one or more linear or cyclic polyamines which provide bleach protection; and

o) the balance carrier and adjunct ingredients.

23. A laundry detergent composition comprising:

a) from about 0.01% by weight, of a polyamine said polyamine having the formula:

$$[J-R]_n-J$$

wherein J is selected from the group consisting of:

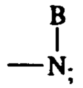
i) primary amino units having the formula:

$$(R^1)_2N:$$

ii) secondary amino units having the formula:

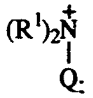
$$-R^1N:$$

iii) tertiary amino units having the formula:



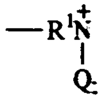
$$-\overset{B}{\overset{|}{N}};$$

iv) primary quaternary amino units having the formula:



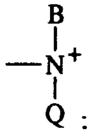
$$(R^1)_2\underset{Q}{\underset{|}{\overset{+}{N}}}:$$

v) secondary quaternary amino units having the formula:



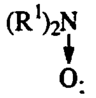
$$-R^1\underset{Q}{\underset{|}{\overset{+}{N}}}:$$

vi) tertiary quaternary amino units having the formula:



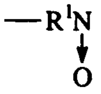
$$-\underset{Q}{\underset{|}{\overset{B}{\overset{|}{N^+}}}}\ :$$

vii) primary N-oxide amino units having the formula:



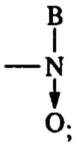
$$(R^1)_2\underset{O}{\underset{\downarrow}{N}}:$$

viii) secondary N-oxide amino units having the formula:



$$-R^1\underset{\underset{O}{\downarrow}}{N}$$

ix) tertiary N-oxide amino units having the formula:



$$-\overset{B}{\overset{|}{\underset{\underset{O}{\downarrow}}{N}}};$$

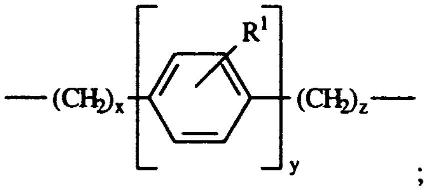
x) and mixtures thereof;

wherein B is a continuation of the backbone by branching having the formula:

$$[J-R]-;$$

R is a backbone unit selected from the group consisting of:

i) C_2-C_{12} linear alkylene, C_3-C_{12} branched alkylene, C_6-C_{16} substituted or unsubstituted arylene, C_7-C_{40} substituted or unsubstituted alkylenearylene having the formula:



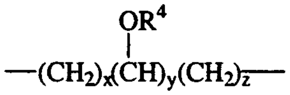
;

or mixtures thereof;

ii) poly(alkyleneoxy)alkylene units having the formula:

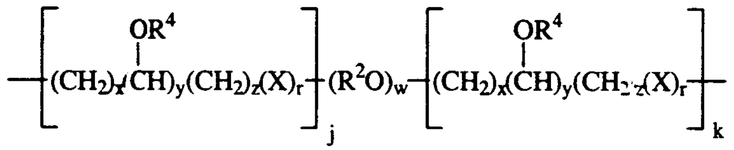
$$-(R^2O)_w(R^3)-$$

iii) hydroxyalkylene units having the formula:



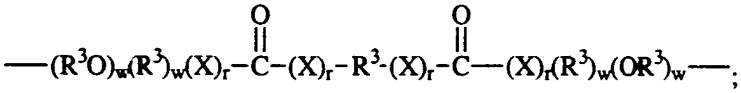
$$-(CH_2)_x(\overset{OR^4}{\overset{|}{C}}H)_y(CH_2)_z-$$

iv) hydroxyalkylene/oxyalkylene units having the formula:



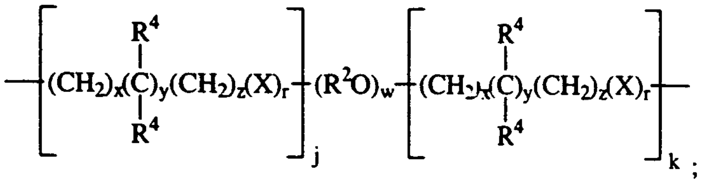
$$-\left[(CH_2)_x(\overset{OR^4}{\overset{|}{C}}H)_y(CH_2)_z(X)_r\right]_j(R^2O)_w\left[(CH_2)_x(\overset{OR^4}{\overset{|}{C}}H)_y(CH_2)_z(X)_r\right]_k-$$

v) carboxyalkyleneoxy units having the formula:



$$-(R^3O)_w(R^3)_w(X)_r-\overset{O}{\overset{\|}{C}}-(X)_r-R^3-(X)_r-\overset{O}{\overset{\|}{C}}-(X)_r(R^3)_w(OR^3)_w-;$$

vi) backbone branching units having the formula:



$$-\left[(CH_2)_x\Big(\overset{R^4}{\underset{R^4}{C}}\Big)_y(CH_2)_z(X)_r\right]_j(R^2O)_w\left[(CH_2)_x\Big(\overset{R^4}{\underset{R^4}{C}}\Big)_y(CH_2)_z(X)_r\right]_k-\;;$$

vii) and mixtures thereof;

R^1 is selected from the group consisting of:

i) hydrogen;

ii) C_1-C_{22} alkyl;

iii) C_7-C_{22} arylenealkyl;

iv) C_7-C_{22} alkylenearyl;

v) $-[CH_2CH(OR^4)CH_2O]_s(R^2O)_tY$;

vi) anionic units;

vii) and mixtures thereof;

R^2 is selected from the group consisting of ethylene. 1,2-propylene, 1,3-propylene, 1,2-butylene, 1,4-butylene, 1,6 hexylene. 1,2-hexylene, 1,4-phenylene, and mixtures thereof;

R^3 is C_2-C_8 linear alkylene, C_3-C_8 branched alkylene, phenylene, substituted phenylene, and mixtures thereof;

R^4 is hydrogen, C_1-C_6 alkyl, $-(CH_2)_u(R^2O)_t(CH_2)_uY$. and mixtures thereof;

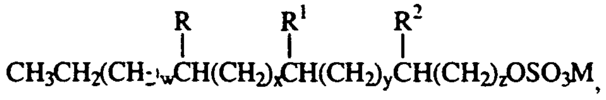
Q is a quaternizing unit selected from the group consisting of C_1-C_4 linear alkyl, C_1-C_4 hydroxyalkyl, benzyl, $-[CH_2CH(OR^4)CH_2O]_s(R^2O)_tY$, and mixtures thereof;

X is oxygen, $-NR^4-$, and mixtures thereof;

Y is hydrogen, C_1-C_4 linear alkyl, $-N(R^1)_2$, an anionic unit, and mixtures thereof; the index j is from 0 to 20; the index k is from 1 to 20; n is from 2 to 1000; the index r is 0 or 1; the index s is from 0 to 5; the index t has an average value of from about 0.5 to about 100; the index u is from 0 to 6; the index w is from 0 to 25; the indices x, y, and z are each independently from 0 to 20;

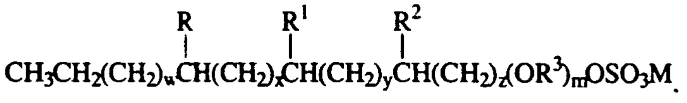
b) from about 0.01% by weight, of a surfactant system comprising:

i) from 0% to 80% by weight, of a mid-chain branched alkyl sulfate surfactant selected from the group consisting of surfactants having the formula:



$$\mathrm{CH_3CH_2(CH_2)_w\overset{R}{\overset{|}{C}}H(CH_2)_x\overset{R^1}{\overset{|}{C}}H(CH_2)_y\overset{R^2}{\overset{|}{C}}H(CH_2)_zOSO_3M},$$

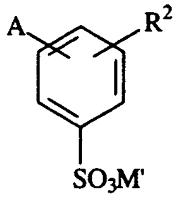
the formula:



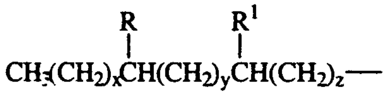
$$\mathrm{CH_3CH_2(CH_2)_w\overset{R}{\overset{|}{C}}H(CH_2)_x\overset{R^1}{\overset{|}{C}}H(CH_2)_y\overset{R^2}{\overset{|}{C}}H(CH_2)_z(OR^3)_mOSO_3M}.$$

and mixtures thereof; wherein R, R^1, and R^2 are each independently hydrogen, C_1-C_3 alkyl. and mixtures thereof, provided the total number of carbon atoms in said surfactant is from 14 to 20 and at least one of R, R^1, and R^2 is not hydrogen; the index w is an integer from 0 to 13; x is an integer from 0 to 13; y is an integer from 0 to 13; z is an integer of at least 1; provided w + x + y + z is from 8 to 14 and the total number of carbon atoms in a surfactant is from 14 to 20; R^3 is ethylene, 1,2-propylene, 1,3-propylene, 1,2-butylene, 1,4-butylene, and mixtures thereof; the average value of the index m is at least about 0.01;

ii) from 0% to 80% by weight, of a mid-chain branched aryl sulfonate surfactant having the formula:



wherein A is a mid-chain branched alkyl unit having the formula:



$$\mathrm{CH_3(CH_2)_x\overset{R}{\overset{|}{C}}H(CH_2)_y\overset{R^1}{\overset{|}{C}}H(CH_2)_z}—$$

wherein R and R^1 are each independently hydrogen, C_1-C_3 alkyl, and mixtures thereof, provided the total number of carbon atoms in said alkyl unit is from 6 to 18 and at least one of R and R^1 is not hydrogen; x is an integer from 0 to 13; y is an integer from 0 to 13; z is 0 or 1; R^2 is hydrogen, C_1-C_3 alkyl. and mixtures thereof; M' is a water soluble cation with sufficient charge to provide neutrality;

iii) optionally from 0.01% by weight, of a surfactant selected from the group consisting of anionic, nonionic, cationic, zwitterionic, ampholytic surfactants, and mixtures thereof;

c) from about 1 ppb of the composition, of a transition-metal bleach catalyst;

d) from about 1% by weight, of a builder; and

e) the balance carriers and adjunct ingredients.